IN THE DRAWINGS:

Formal drawings have been provided previously.

REMARKS

In response to the Examiner's Office Action of March 20, 2006, Applicants are herein presenting their considerations and response to the Examiner's comments.

The Examiner has rejected claims 1-3 and 5-9 under 35 USC Article 103(a) as being obvious in view of Joffe et al. (U.S. Patent 6,185,619) when combined with Attanasio et al. (U.S. Patent 5,918,017) in further view of Evans et al., "*A Communication-Oriented Task Graph Allocation Algorithm*", UUCS-92-026, April 1992, pages 1-25. Applicants would now traverse Examiner's conclusions.

Applicants submit that the claimed invention, in at least independent claims 1, 7, 8 and 9, describes a method and system which comprises three main steps. These steps are:

- Receiving a transaction request from a client (step 1);
- Determining an idle server process that most recently finished execution of a previous transaction (step 2); and
- Forwarding the transaction request to the most recently idle process (step 3).

As implied in the description of the present application, such a system (most recently idle process) will be seen to be "counter-intuitive" to normal engineering thought.

Traditional algorithms used to allocate a transaction request to a process will normally assign transactions to

processes in a round robin (i.e. next available) fashion or in random fashion.

The claimed invention, in contrast, allocates transactions by firstly determining which "idle" server process has most recently finished execution of a previous transaction; and then forwarding the transaction request to the most recently idle server process.

This sequential operative process provides a number of benefits, including an increased probability that previously cached values in memory can be reused, thereby saving time normally used to flush or overwrite the memory cache. Some of the benefits which arise from the claimed invention are described in the specification generally at pages 14 (beginning at line 18) through page 15, line 31.

None of the three reference documents cited by the Examiner either explicitly or implicitly teach towards the claimed invention. Examiner admits that neither Joffe nor Attanasio teach the desirability of sending a transaction request to the most recently idled process. Moreover, there appears to be no motivation or implication in either of these two documents to suggest that such a feature is desirable or gives rise to any advantage.

Examiner suggests later that Evans discloses a list scheduling algorithm (referred to as the "Ravi Algorithm") that creates a priority queue of tasks to be performed and queued, of idle processes arranged such that the stack queue causes the most recently idle processor to be the processor selected for allocation (page 9).

To quote, the Examiner states at page 3 (of Examiner's Office Action):

> "One would be motivated to apply these teachings to the above-mentioned system because in doing so the selected task (transaction request for executing that task) is the one which gives the maximum saving for the communication time for the chosen processor which recently idled".

However, in making this statement, Examiner has erroneously conflated two different statements given at page 9 of Evans et al. At page 9, Evans states:

> "PSET is a stack queue causing the most recently idled processor to be the processor selected for allocation".

Then, in a separate series of sentences, Evans states:

> "The heuristics select the task from a range of high priority tasks. The task selected is the one which gives the maximum savings in communication time for the chosen processor".

That is, the Ravi Algorithm discussed at page 9 of the reference to Evans et al., describes a process which has the following steps:

- Step 1: Select the most recently idled process;
- Step 2: Choose a task (from a plurality of tasks), which, in view of the processor chosen, gives the maximum saving;
- Step 3: Allocate the selected task to the selected processor.

In other words, the decision in Evans et al. to select the most recently idle processor is not based on an understanding that processing time may be saved by possibly removing the need to flush and/or override a memory cache, but rather, the central impetus of the Ravi Algorithm is to select a task appropriate for the selected processor.

Also note the further statement at page 9 of Evans:

> "If a task is allocated to the same processor as one of its precedent tasks, then the communication costs between them is saved".

And here, it would be pointed-out --- this statement on allocation "to one of its precedent tasks" does not teach or specify allocation to the "most recently idled processor".

Therefore, Evans et al. does not suggest the desirability of the claimed invention, as it does not teach the desirability or motivation for choosing the most recently idled processor. The mere fact that references can be combined or modified does not render the resultant combination obvious, unless the prior art also suggests the desirability of the combination. (See *In re Mills*, 916 F.2d, p.680, 16 USPQ2d, pp. 1430 (Fed.Cir.1990)).

None of the prior art references, either singularly or in combination, teaches the desirability or the potential benefits that may arise from allocating an incoming transaction request to the most recently idled process.

Therefore, Applicants' claims as a whole are novel and non-obvious, as obviousness is not established, particularly since none of the references provide any suggestion or motivation

to combine the three cited references into a workable combination.

As a result, it is respectfully requested that Examiner consider Applicants' claims as a whole in their entirety and subsequently provide a timely Notice of Allowance.

Respectfully submitted,

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Certificate of Mailing (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Patti S. Preddy

Date: June 14, 2006 Patti S. Preddy